

United States Patent [19]

Roberts et al.

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[54] METHOD AND APPARATUS FOR REMOTE TALK/LISTEN COMMUNICATION SYSTEM

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[21] Appl. No.: 947,155

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4,701,944 10/1987 Howard et al. 379/63

OTHER PUBLICATIONS

Kobayashi et al., "Detachable Mobile Radio Units for the 860 MHz Land Mobile Radio System", IEEE 34th Vehicular Technology Conference, 5/84.

Theory/Maintenance Manual 68P1010C05-A for the Motorola PAC*RT Portable/Mobile Vehicular Repeater System.

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ABSTRACT

A vehicle mounted mobile transceiver having a first and second frequency (11) communicates via a secondary mobile unit (51) with a short range portable unit (10). The portable unit (10) can be either a cordless microphone or a transceiver having a third and fourth frequency. The portable unit (10) allows a remotely positioned operator to transmit messages to a base station (13). To ensure security and reliable operation, the portable and vehicle mounted units use range burst signals and missed message signals to monitor receipt of data signals at the portable unit. The portable and secondary mobile unit communicate with one another via a first pair of frequencies and the vehicle mounted mobile transceiver and the base station communicate with one another via a second pair of different frequencies.

9 Claims, 17 Drawing Sheets

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 917,923, Oct. 10, 1986, Pat. No. 4,748,685.

[51] Int. Cl. 4 H04B 1/40

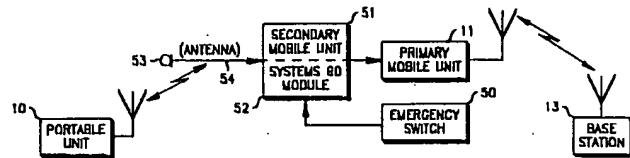
[52] U.S. Cl. 379/58; 379/63;
455/54

[58] Field of Search 379/58, 59, 60, 63,
379/57; 455/33, 54, 14, 17, 18

References Cited

U.S. PATENT DOCUMENTS

3,955,140	5/1976	Stephens et al.	455/11
4,056,779	11/1977	Toler	325/4
4,056,780	11/1977	Faulkner	325/5
4,539,706	9/1985	Mears et al.	455/11
4,593,273	6/1986	Narcisse	340/539
4,606,073	8/1986	Moore	455/89
4,647,722	3/1987	Nishida et al.	379/63
4,658,435	4/1987	Childress et al.	455/17
4,661,972	4/1987	Kai	379/57
4,673,861	6/1987	Dubovsky et al.	320/2



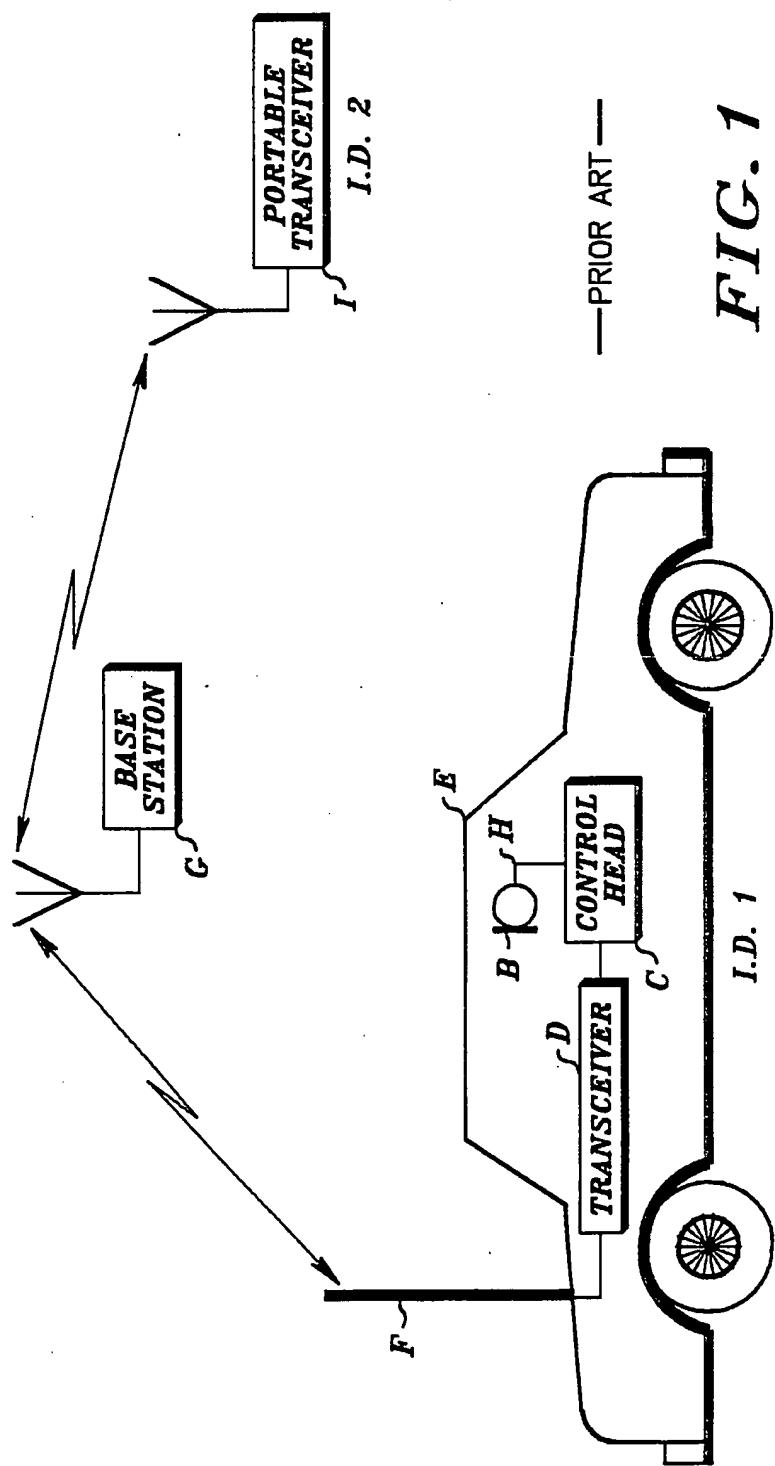


FIG. 1

